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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,957	09/30/2003	Carl Myerholtz	10020421-1	8137

7590 12/15/2006
AGILENT TECHNOLOGIES, INC.
Legal Department, DL429
Intellectual Property Administration
P.O. Box 7599
Loveland, CO 80537-0599

EXAMINER

CROW, ROBERT THOMAS

ART UNIT	PAPER NUMBER
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1634

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

TH

Advisory Action Before the Filing of an Appeal Brief	Application No. 10/676,957	Applicant(s) MYERHOLTZ ET AL.	
	Examiner Robert T. Crow	Art Unit 1634	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 13 November 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
 (b) ☐ They raise the issue of new matter (see NOTE below);
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
 5. ☐ Applicant's reply has overcome the following rejection(s): _____.
 6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
 The status of the claim(s) is (or will be) as follows:
 Claim(s) allowed: _____.
 Claim(s) objected to: _____.
 Claim(s) rejected: _____.
 Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
 12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
 13. ☒ Other: See Continuation Sheet.

Continuation of 11. does NOT place the application in condition for allowance because: Applicant argues on page 7 of the Remarks filed 13 November 2006 that silica is not resistive. However, Hunt et al define silica as highly resistive as noted in the Final Office Action of 8 September 2006. In addition, Kroger (U.S. Patent No. 4,142,113, issued 27 February 1979) teaches silica is resistive (column 3, lines 37-39). Howald et al (U.S. Patent No. 5,898,047, issued 27 April 1999) also teach silica is resistive (column 3, lines 20-35). The prior art therefore clearly teaches that silica is resistive.

Applicant relies on a parenthetical comment in Hunt et al that silica is a dielectric, which is defined by Webster and by Hackh as being a nonconductor of electricity. The electrical conductivity of materials is generally broadly classified in three groups: conductors, resistors, and insulators. Thus, a "nonconductor" is reasonably broadly interpreted as a material that is not a conductor; i.e., either a resistor or an insulator.

It is also noted that claim 8 is drawn to a "metal oxide" as a resistive material. Silicon is a metal; therefore, silica, which is an oxide of silicon, meets the limitation of the proudly claimed "metal oxide" of dependent claim 8.

Therefore, in light of the teachings of the prior art, the reasonably broad interpretation of "nonconductor," and the broadly claimed "metal oxide" of claim 8, the silica layer of Mirkin et al anticipates the resistive pad of the instant claims.

Applicant also argues on page 7 of the Remarks that Mirkin teaches that the oligonucleotides are attached to the substrate, and are therefore not supported on the resistive pad.

However, the "substrate" of Mirkin et al is interpreted as the silica tlc plate (paragraph 0133 of Mirkin et al). Thus the "substrate" as taught by Mirkin et al is a substrate having a pad of resistive material disposed thereon as required by the claims, because the "substrate" of Mirkin has both structural elements.

Applicant argues on pages 7-8 that Mirkin does not teach a first electrode on a substrate because Mirkin et al do not teach removing a portion of the silica to place the electrodes directly on the glass.

However, use of the open claim language "comprising" in the instant claim encompasses the additional layer of silica between the glass substrate and the electrode.

Applicant acknowledges on page 8 of the Remarks that the substrate is the glass of a glass tlc plate. Applicant relies on both Webster and on Hackh to define glass as primarily being composed of silicon dioxide, though the definitions have not been provided by Applicant. Applicant then argues that claim 7 is patentable over the teachings of the combination of the prior art.

Applicant does not, however, provide any clear rationale as to why claim 7 is patentable. The examiner has interpreted Applicant's statements to mean that the resistive silica layer and the silicon dioxide glass are somehow different from each other.

Mirkin et al teach glass is non-conducting (paragraph 0133). Hunt et al, Kroger et al, and Howald et al teach silica is resistive as outline above. Therefore, the combination of the prior art teaches that a glass tlc plate coated with silica is a non-conductive substrate with a resistive layer.

Applicant argues on page 9 of the Remarks that the metal linker layer cannot be the resistive layer.

However, Eggers et al provides motivation for supporting the probe on the electrode plate; namely, that supporting probes on the electrode plates results in stable conjugates of the probes (column 8, lines 26-35). The teachings of Eggers et al are not relied upon for a resistive layer.

In addition, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant argues on page 10 of the Remarks that Mansky does not overcome the alleged deficiencies of Mirkin et al, Rupchock et al, and Hunt et al. Because the arguments regarding the alleged deficiencies are not persuasive, the rejection of the dependent claims in view of Mansky et al are maintained.

It is noted that the arguments on page 10 refer to the combined teachings of Mansky et al and Eggers et al. Eggers et al was not used in the rejection of claims 1, 4, 10, and 14 under 35 USC 103(a).

Applicant argues on page 11 of the Remarks that the electrodes of Choong et al are not on a substrate as required by the claims.

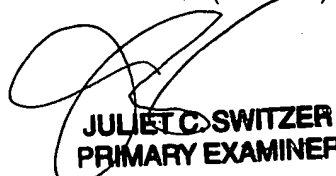
However, Choong et al provides motivation for using a segmented pad; namely, because segmented pads prevent unwanted reactions between the electrodes and the sample (column 2, lines 31-37). The teachings of Choong et al are not relied upon for electrodes on substrates.

In addition, as noted above, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.

Applicant also argues on page 11 of the Remarks that Choong et al (not Cass) do not teach the subject matter does not overcome the alleged deficiencies of Mirkin et al, Rupchock et al, and Hunt et al. Because the arguments regarding the alleged deficiencies are not persuasive, the rejection of the dependent claims in view of Choong et al are maintained.

Applicant argues on pages 11-12 of the Remarks that Cass et al does not overcome the alleged deficiencies of Mirkin et al, Rupchock et al, and Hunt et al. Applicant is correct that the Office Action contained a typo, and that Cass et al, not Mansky et al, was the intended reference. Because the arguments regarding the alleged deficiencies are not persuasive, the rejection of the dependent claims in view of Cass et al are maintained.

Continuation of 13. Other: Please note the attached Notice of References Cited (PRO-892) and Search Notes.


JULIET C. SWITZER
PRIMARY EXAMINER

